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Silicon Carbide, Reaction-Bonded, SiSiC: www.matweb.com.*

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- (51) **Int. Cl.**
F02C 7/20 (2006.01)
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F23R 3/00 (2006.01)
F23R 3/60 (2006.01)

(57) **ABSTRACT**

An improved fastening system and method overcomes traditional thermal mismatch that occurs with standard fastener systems that are employed in extreme temperature environments. The fastening system could employ a metallic fastener that is combined with metallic spacer, each of which having a differing thermal growth coefficient. This arrangement may reduce thermal expansion by several orders of magnitude over the range of temperatures where the thermal fastener can be applied. Such an improved fastening system may be employed in gas turbine machines and in other locations where it is desirable to improve fastening of objects in extreme temperature environments.

- (52) **U.S. Cl.**
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F23R 3/002 (2013.01); *F23R 3/007* (2013.01);
F23R 3/60 (2013.01)

- (58) **Field of Classification Search**
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USPC 60/798, 753, 796, 797, 799, 800
See application file for complete search history.

20 Claims, 2 Drawing Sheets

